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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/275,273	03/23/1999	FRANK P. HART	42390.P5368	9527

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EXAMINER

MYERS, PAUL R

ART UNIT PAPER NUMBER

2111

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	09/275,273		HART ET AL.	
	Examiner		Art Unit	
	Paul R. Myers		2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-21 and 24-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-21 and 24-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2/05/07 have been fully considered but they are not persuasive.

In regards to applicants argument that Burgin's secondary voltage regulator does have a higher output voltage than the primary voltage, but a greater voltage output does not inherently mean a greater power capacity: The examiner recognizes Ohm's law. ($P=VI=I^2R=V^2/R$). With a given current or resistance a higher voltage necessitates a higher power however in reviewing Burgin there is no indication of the output current or resistance. However Burgin makes clear that the inclusion of different voltage output regulators are known. Official notice is taken that mixing different types and capacities of regulators are well known, also voltage regulators with the same current output are well known. It would have been obvious to a person of ordinary skill in the art at the time of the invention to mix the regulators in any manner desired by the system designer because this would have allowed for optimizing the voltage regulators. The examiner has previously cited several references that teach different power capabilities see for example the references cited again below.

In regards to applicants argument that Burgin's secondary voltage regulator does not provide "additional" power to the load, Burgin's secondary voltage regulator provides "alternative" power to the load. Burstein teaches the secondary power regulators providing additional power to the load

In regards to applicants argument that Yanagisawa neither port of Yanagisawa can provide additional power to a load. Burstein teaches providing additional power to a load.

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In regards to applicants argument that Yanagisawa does not disclose voltage regulators at all. Burstein teaches voltage regulators.

In regards to applicants argument that Tracy does not disclose voltage regulators at all. Burstein teaches voltage regulators.

In regards to applicants argument that Norris does not disclose voltage regulators at all. Burstein teaches voltage regulators.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 19-21, 24, 27, 29-31, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burstein et al PN 6,268,716 in view of Burgin PN 4,327,298.

In regards to claims 19 and 29: Burstein et al teaches a primary voltage regulator (the first 16 and 18 taken together) to provide primary power to a load (14) from a power source (12) the primary voltage regulator having a feedback circuit (18) to detect power supplied to the load and to control any additional voltage regulators (The additional 16's); and a secondary voltage regulator (the next 16) to selectively provide additional power to the load from the power source. Burstein et al does not teach a first and second power source and the second voltage regulator providing power based at least in part on the availability of the second power source or the

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second voltage regulator having a greater power capacity than the first voltage regulator. Burgin teaches an apparatus (figure 1) comprising: a primary voltage regulator (23) to provide primary power (output of 23) to a load (25) from at least one of a first power source (34) or a second power source (10); and a second voltage regulator (17) to selectively (based upon the presence of the source 10) provide power (output of 17) to the load from the second power source (10) based at least in part on the availability of the second power source (Abstract), wherein the secondary voltage regulator (17) has a greater capacity than the primary voltage regulator (23) (output of voltage regulator 17 is +9v Column 2 lines 10-19, output of voltage regulator 23 is +5v Column 2 lines 20-43). It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide separate power sources and activate the additional regulators based on the availability of a line AC because this would have allowed for an uninterruptible power supply (UPS). Official notice is taken that mixing different types and capacities of regulators are well known, also voltage regulators with the same current output are well known. It would have been obvious to a person of ordinary skill in the art at the time of the invention to mix the regulators in any manner desired by the system designer because this would have allowed for optimizing the voltage regulators.

In regards to claim 20: Burgin teaches the first power source comprises a battery (34) and the second power source comprises an alternating current (AC) line adapter (10) and that the secondary regulator is less efficient than the first regulator that provides super regulation.

In regards to claims 21, 30 and 33: Burststein teaches the feedback circuit in the primary voltage regulator to control the secondary voltage regulator to provide the additional power if a

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load power reaches a threshold level. Burgin teaches supplying power from the second voltage regulator is second power is available.

In regards to claims 24 and 31: Burstein teaches a tertiary voltage regulator to detachably couple with the load (disabled), said tertiary voltage regulator to selectively provide further additional power to the load from the power source. Burgin teaches providing power based upon availability of the power source.

In regards to claim 27: Burstein teaches a feedback network to couple to the load, the primary voltage regulator, the secondary voltage regulator, and the tertiary voltage regulator, said feedback network to control the secondary voltage regulator to provide the additional power if a load power reaches a first threshold level and the second power source is available, and to control the tertiary voltage regulator to provide the further additional power if the load power reaches a second threshold level and both the tertiary voltage regulator and the second power source are available.

4. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burgin PN 4,327,298 in view of Burstein PN 6,268,716 as applied to claim 24 further in view of Yanagisawa PN 6,078,109.

In regards to claim 25: Burgin and Burstein teach general purpose power supplies and is silent upon possible locations for the regulators. Yanagisawa teaches a mobile computer (100), said mobile computer containing the primary voltage regulator (12), and the load (13); and a

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docking station to detachably receive the mobile computer (200), said docking station containing the tertiary voltage regulator (22). Burgini teaches the secondary voltage regulator,

5. Claims 26, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgin PN 4,327,298 in view of Burstein et al PN 6,268,716 and Yanagisawa PN 6,078,109 as applied to claim 25 further in view of Tracy PN 6,191,943.

In regards to claims 26 and 32: Yanagisawa does not teach thermal heat dissipation for the docked third voltage regulator. Tracy teaches active heat dissipation for the docked notebook. It would have been obvious to add heat dissipation because this would have protected the notebook from overheating.

6. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burgin PN 4,327,298 in view of Burstein PN 6,268,716 as applied to claim 24 and further in view of Norris PN 5,630,148.

In regards to claim 28: Burstein teaches a variable load. Burstein however is silent as to the type of load. Norris teaches a load that has at least a low performance mode, a medium performance mode, and a high performance mode.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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PN 4,611,162 to Erratico et al teaches multiple voltage regulators each with different operating characteristics being operated together to collectively form a single regulator with greater total power out.

PN 3,414,802 to Harrigan teaches multiple voltage regulators with different output power.

PN 3,356,855 to Suzuki et al teaches multiple power sources with different power levels feeding regulators in parallel to supply a single load line.

PN 3,971,957 to Hase teaches a system with two power sources one being an inverter and the other being a commercial power source with the inverter being expressly the primary power source and the commercial power source, ordinarily available, as being the alternate power source.

PN 4,194,147 to Payne et al teaches multiple regulators with different power capabilities (See abstract) coupled together to provide additional power to the load.

PN 3,956,638 to Ahrens et al teaches multiple regulators each with its own power source that provides additional current to a load based upon the availability of the battery.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul R. Myers whose telephone number is 571 272 3639. The examiner can normally be reached on Mon-Thur 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PRM
March 23, 2007


PAUL R. MYERS
PRIMARY EXAMINER